

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF NEW MEXICO

JANEEN ARBLE,

Plaintiff,

v.

No. 10cv147 WJ/WDS

STATE FARM MUTUAL INS. CO.,

Defendant.

MEMORANDUM OPINION AND ORDER
DENYING PLAINTIFF'S MOTION IN LIMINE TO EXCLUDE OR LIMIT
TESTIMONY OF DEFENDANT'S AUTO EXPERT, MICHAEL HEARROLD

THIS MATTER comes before the Court on Plaintiff's Motion in Limine to Exclude or Limit the Testimony of Defendant's Auto Expert, Michael Hearrold, filed November 22, 2011 (**Doc. 53**), following a *Daubert* hearing on June 30, 2011. Having considered the parties' briefs, testimony by both the defense expert, Michael Hearrold, and Plaintiff's expert, Rob Painter,¹ counsel's arguments and the relevant law, I find that Mr. Hearrold meets the requirements under *Daubert* to offer expert testimony as an automobile forensic expert in this case. Accordingly, Plaintiff's motion is denied.

Background

In the underlying lawsuit, Plaintiff's vehicle, a 2008 Chrysler Sebring, was allegedly stolen from the airport parking lot and taken to another place where it was burned. Plaintiff alleges that Defendant has refused to pay all or part of Plaintiff's losses. Plaintiff filed the complaint in Second Judicial District Court, Bernalillo County, and Defendant removed the case

¹ The Court's recent Order limited Plaintiff's use of her expert to the *Daubert* hearing. See Doc. 68. Because Plaintiff failed to make proper and timely Rule 26 disclosures, the Court held that Mr. Painter's testimony "shall not be admissible for any purpose other than for a *Daubert* inquiry. . . ." Doc. 68 at 6.

to federal court on diversity grounds. The complaint asserts claims of breach of contract, insurance bad faith, breach of Unfair Trade & Practices, and Plaintiff seeks declaratory judgment against Defendant, her insurer.

In this motion, Plaintiff moves to exclude the testimony of Defendant's automobile forensic examiner, Michael Hearrold, who performed a lock and ignition analysis for Plaintiff's vehicle. Mr. Hearrold concludes that Plaintiff's car was not stolen based on his opinion that the same key used to regularly start Plaintiff's car was also used to transport the vehicle to the place where the car was burned, and that the steering column anti-theft features of the car were not compromised. This testimony is based on Hearrold's forensic analysis of the car, which included an examination of the ignition lock showing no tool marks consistent with a theft of the vehicle.

Discussion

Plaintiff objects to Mr. Hearrold's expert qualifications as well as the reliability of the opinion testimony. In *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579, 597 (1993), the United States Supreme Court explained that Rule 702 assigns to the district judge a gatekeeping role to ensure that scientific testimony is both reliable and relevant. *See Dodge v. Cotter Corp.*, 328 F.3d 1212, 1221 (10th Cir. 2003) (trial judge must determine whether the testimony has a reliable basis in the knowledge and experience of the relevant discipline). The gate-keeping function involves a two-step analysis. First, the Court must to determine whether the expert is qualified by "knowledge, skill, experience, training or education" to render an opinion. *See Fed.R.Evid. 702*. Second, if the witness is so qualified, the Court must determine whether the expert's opinions are "reliable" under the principles set forth under *Daubert*, 509 U.S. 579, and *Kumho Tire Co., Ltd. v. Carmichael*, 526 U.S. 137 (1999); *see Ralston v. Smith & Nephew Richards, Inc.* 275 F.3d 965 (10th Cir. 2001).

To assist in the assessment of reliability, the Supreme Court in *Daubert* listed four nonexclusive factors that the trial court may consider: (1) whether the opinion at issue is susceptible to testing and has been subjected to such testing; (2) whether the opinion has been subjected to peer review; (3) whether there is a known or potential rate of error associated with the methodology used and whether there are standards controlling the technique's operation; and (4) whether the theory has been accepted in the scientific community. 509 U.S. at 593-94, 113 S.Ct. 2786. As noted, the list is not exclusive, and district courts applying *Daubert* have broad discretion to consider a variety of other factors. *Kumho Tire*, 526 U.S. at 150, 119 S.Ct. 1167 *Dodge*, 328 F.2d at 1222.

Under *Kumho Tire*, a reliability finding is a prerequisite for *all* expert testimony in areas beyond the knowledge and experience of lay jurors, not just technical or scientific evidence. In *Kumho Tire*, the United States Supreme Court emphasized that *Daubert* factors are not a “definitive checklist or test” and that a court’s inquiry into reliability must be “tied to the facts of a particular case.” *Id.* at 150. Also, according to the *Kumho Tire* decision, “the trial judge must have considerable leeway in deciding in a particular case how to go about determining whether particular expert testimony is reliable.” *Id.* at 152.

I. Qualifications

An expert is required to possess “such skill, experience or knowledge in that particular field as to make it appear that his opinion would rest on substantial foundation....” *Lifewise Master Funding v. Telebank*, 374 F.3d 917, 928 (10th Cir. 2004). Once the trial court has determined that expert testimony would be helpful to the trier of fact, a witness “may qualify as an expert by knowledge, skill, experience, training, or education. *Gardner v. Gen. Motors Corp.*, 507 F.2d 525, 528 (10th Cir. 1974). At that point, the expert “should not be required to satisfy an overly narrow test of his own qualifications.” *Id.* Rule 702 has a “liberal thrust” regarding

expert qualifications. *United States v. Gomez*, 67 F.3d 1515, 1526 (10th Cir. 1995) (describing rule 702 as a “liberal standard,” citing *Daubert*, 509 U.S. 579, 113 S.Ct. at 2794)). The trial court has broad discretion in deciding whether to admit or exclude expert testimony. *See Werth v. Makita Elec. Works, Ltd.*, 950 F.2d 643, 647 (10th Cir. 1991).

Plaintiff contends that Mr. Hearrold is not adequately trained in the field of tool mark and metal wear analysis because his only qualification applicable to this case is a three-day course in microscopic lock analysis. The Court rejected this argument during the hearing and ruled that Mr. Hearrold was qualified as an automotive forensic examiner under *Daubert*. Mr. Hearrold is a Master Forensic Examiner accredited by the Society of Automotive Forensic Examiners. He has over 70,000 hours in the automotive area: 1,500 hours of manufacturer’s training from various vehicle manufacturers; over 40 years experience as an automotive technician specializing in steering/columns, electrical instrument drivability, and fire repair and diagnosis. Mr. Hearrold holds an ASE (“Automotive Service Excellence”) certification, and is a few hundred points short of the highest level of certification in that area. He has attended a three-day course in microscopic lock analysis, in addition to many other specialized training classes. The fact that Mr. Painter may have had more training in a limited field of expertise is insufficient to disqualify Mr. Hearrold. *See Gardner*, 507 F.2d at 528 (affirming district court’s conclusion that both parties’ experts were qualified to testify even though one “may hold more experience and training in the specifics of the limited field of expertise considered”). Mr. Hearrold testified that he has handled over 2500 stolen vehicle cases, 80% of which were stolen vehicles. About half of the stolen vehicles cases involved fire damage. Mr. Hearrold has given testimony in cases going back to 1998, and has never been disqualified as an expert in any court case in which he has been hired as an expert. Thus, Mr. Hearrold’s knowledge, skill, experience, training and education satisfy *Daubert*’s qualification requirements.

II. Reliability²

Mr. Hearrold used microscopic lock analysis to see whether any tools had marred the surface of the lock wafer, in order to determine whether a vehicle theft occurred. At the hearing, he explained the ignition mechanism of a car: the turn of a key in the ignition lock sends a signal or code through a transponder chip which, if recognized by the system, causes the car to start up; if the code is not recognized, the car engine dies within two seconds. The actual lock mechanism contains inner and outer lock cylinders. The inner cylinder holds lock wafers and a spring. The wafers have anti-theft grooves. Markings will be evident on the lock wafers when a key that is not normally used is used to start the car. Different “wear-off” material (types of damage marks) on the wafer’s contact surface will be visible on microscopic examination, depending on what is used in trying to start the car other than the normal key. For example, lockpicking involves pushing the wafers down out of their locking grooves while at the same time exerting rotational pressure. This action leaves markings on the lock wafers which are different from using a key – even another key that is supposed to match the cylinder, such as a spare key. Moreover, even if a lock system is compromised, a vehicle’s anti-theft system still prevents it from being driven. Mr. Hearrold testified that the method regularly used in the forensic automotive industry in order to determine if a lock system had been compromised involves a microscopic examination of all the lock mechanism components. Also, the same methodology has been found to be reliable by other courts. This type of analysis requires a familiarity with the various ways a car lock mechanism could be broken into, and knowing what marks to look

² Exhibits were offered and admitted at the hearing which depicted the mechanism parts referred to by Mr. Hearrold. For example, Mr. Hearrold’s expert report (Exhibit 3) contained pictures of the transponder and lock cylinder recovered from Plaintiff’s car, and an enlarged photo of the wafer showing the kind of wear expected from repeated use with a normal key. Exhibit 4 was an enlarged cross-section diagram of a lock cylinder.

for. Because a car lock system is essentially a mechanical device, any effort to compromise the system and steal the car will leave some kind of physical evidence. Mr. Hearrold explained that bypassing the system's safeguards without a key is possible, but it requires considerable expertise and resources. Transponders can be overridden by installing an after-market remote starter, but this is a complex process and involves taking the dashboard apart. Mr. Hearrold noted that this level of expertise is attributed to professional thieves, who would most likely intend to strip the car and sell parts, rather than burn it.

Mr. Hearrold also described the examination process of the debris from the burnt car lock mechanism. Debris was examined, collected and catalogued by zone at the burn site. An examination of this material indicated that the key was still in the ignition at the time of the fire, and that no one had broken the lock. Debris from the lock cylinders was found embedded in the carpet fibers, and the fibers were extracted from the cylinders by torching the mechanism surface very carefully. In his own microscopic analysis of the lock mechanism belonging to Plaintiff's burnt car, Mr. Hearrold found no markings which could be evidence of forced rotation or prying, leading to the conclusion that nothing other than the normally used key³ had been used to start the car and move it to the location where it was burned. He thus concluded that the steering column and anti-theft features of Plaintiff's car had not been compromised. He specifically found that the ignition had not been broken, the cylinder had not been removed, none of the physical parts displayed any evidence of forced rotation, and there was no tool damage from lock picking.

Plaintiff contends that the conclusion reached by Mr. Hearrold – that Plaintiff's car was not stolen and that the only key used to move the car from the airport parking lot was the key

³ The terms "primary-use key" and "regularly used key" were also used at the hearing to refer to the key normally used to start the engine.

that was normally used to start the car – is based on an analysis that does not satisfy *Daubert*'s reliability standards. Most of Mr. Painter's stated challenges to Mr. Hearrold's examination of the ignition lock mechanism are trivial as well as immaterial to a reliability determination. For example, on direct examination, Mr. Painter took issue with the pictures of the lock wafers because they were not microscopic photographs, but taken using only extreme magnification. He stated that without microscopic enlargement, one cannot adequately see the edge where the key inserts. However, Mr. Hearrold testified that his examination *was* done microscopically. The fact that Mr. Hearrold chose to present merely enlarged photographs of the wafer locks for demonstrative purposes at the hearing has no bearing on the reliability of the methodology used to form the basis for Mr. Hearrold's opinion.

Mr. Painter also finds fault with Mr. Hearrold's opinion in that the opinion refers to the lock mechanism as built into the steering column of the car. Mr. Painter claims that the lock mechanisms on a 2008 Chrysler Sebring are built into the dashboards, and not the steering columns. However, I find that this kind of inconsistency affects the weight of Mr. Hearrold's opinion rather than the integrity of the methodology used by Mr. Hearrold in examining the components.

Mr. Painter offered two meatier challenges which ultimately fail to sufficiently attack the reliability of Mr. Hearrold's opinion, but are worth mentioning here. First, Plaintiff claims that Hearrold did not properly clean the "lock wafers" which were left with a burnt-on residue from the fire. Any crust left on the lock wafers would obscure any minute tool marks that would provide an alternate explanation for what was used in the lock. Mr. Painter stated that he cleans lock wafers by dropping them first in boiling water, then into ice water. This process causes the carbon residue to fall off the wafers without damaging them. However, this does not effectively challenge the reliability of the methods used by Mr. Hearrold. Mr. Hearrold stated that he

cleaned the lock wafers belonging to the lock mechanism of Plaintiff's car before examining them. He used Easy-Off oven cleaner in order to remove the encrusted carbon without damaging the lock wafers, comparing the carbon on the wafers to "burned-on cookie dough." Mr. Hearrold stated that the wafers were sufficiently cleaned to enable him to conduct his examination, even though the wafers may not have been completely clear of the residue. The fact that Easy-Off oven cleaner was used instead of water to clean the wafers does not attenuate the reliability of the methodology relied on by Mr. Hearrold. If anything, Mr. Painter's objections go to the weight of Mr. Hearrold's testimony, but the Court heard no evidence that suggests that water immersion is a more thorough or effective cleaning process than Easy-Off oven cleaner. In fact, Mr. Hearrold explained that an examiner would *not* want to get the lock wafers "sterile clean" in order to leave some type of "depth" or "contrast" allowing tiny marks to remain visible.

Second, Plaintiff contends that Mr. Hearrold's analysis is methodologically flawed because he failed to do a comparative analysis using the normally used keys in the ignition lock. According to Mr. Painter's testimony, without knowing what marks the normally used key makes and therefore what normal wear looks like, it is impossible to know which marks belong on the wafers, and which are not made by the normally used keys. An examination should have been made of all marks made by normally used keys in the lock, using a process of elimination and looking for a "striation" that doesn't match any of the normally used keys. At that point, it can be determined that some other tool or key was used in the lock.

This argument is not persuasive. Mr. Hearrold testified that no keys are needed to determine the normal wear pattern of the key; it can be done by examination of the lock wafers, and by comparison of the marks that are on the wafers with marks a normally-used key is expected to make. Anything other than a normal wear pattern - including the use of an additional programmed key - would leave a visible imprint on the contact surface of the lock

wafers. The keys themselves are not that important. What the examiner looks for instead is whether any anomalies are visible on the key contact surface. For instance, a normally used key is expected to leave scratches that go in a straight line, where any other key would leave marks going the wrong way. Thus, Mr. Hearrold did not need to go through an elimination process in order to conclude that no other marks were on the lock wafers recovered from Plaintiff's car – meaning that no lock pick or wrench had been used.

Plaintiff offers no testimony or evidence that discredits the methodology used by Mr. Hearrold in the examination of the car lock mechanism belonging to Plaintiff's car. In addition to the lack of evidence presented, Plaintiff's challenges are particularly ineffective due to certain issues that render Mr. Painter's testimony as somewhat suspect. Mr. Painter's resume represented that Mr. Painter was certified in numerous organizations which qualified him as an automotive expert, including certification by the International Association of Investigative Locksmiths ("IAIL"). However, on cross-examination, Mr. Painter was faced with having to admit that his IAIL certification was formally revoked in 2006, following an investigation into ethics violations regarding testimony he gave in depositions.⁴ It also became clear that Mr. Painter decided at that time not to renew his dues in any of the professional organizations to which he had belonged. Regardless of whether Mr. Painter still retains the knowledge imparted to him by virtue of gaining certification by those organizations even after he dropped his membership, his Curriculum Vitae represents that he is certified by all of those organizations, when in fact he is not.⁵ In addition, in October 1988, a New Jersey state court found Mr.

⁴ See Deft's Exs. 7 & 8, attached to Clerk's Minutes on June 30, 2011. The IAIL offers certification as a Certified Forensic Locksmith, which Mr. Painter claimed to hold in his Affidavit dated March 2011. See Pltff's Ex. B, ¶ 5.

⁵ See Pltff's Ex. A, attached to Clerk's Minutes of June 30, 2011.


Painter's his resume to be "exaggerated" and his credibility "somewhat questionable."⁶

Conclusion

In sum, I find and conclude that Mr. Hearrold's testimony as an automotive forensic expert in this case meets the requirements under *Daubert*. Mr. Hearrold's knowledge, skill, experience, training and education satisfy *Daubert*'s qualification requirements. Also, in considering the facts of this particular case, I find Mr. Hearrold's testimony to be reliable under the standard set out in *Daubert*. Finally, I find that this testimony will helpful in assisting the jury in deciding the ultimate factual and legal issues in this case.

THEREFORE,

IT IS ORDERED Plaintiff's Motion in Limine to Exclude or Limit the Testimony of Defendant's Auto Expert, Michael Hearrold (**Doc. 53**) is hereby DENIED for reasons described in this Memorandum Opinion and Order.


UNITED STATES DISTRICT JUDGE

⁶ See Ex. 9, attached to Clerk's Minutes of June 30, 2011.